WHAT IS CLAIMED IS:

1. A ceramic compositions, which comprises:
    1. at least about 91 mole % zirconia; and
    2. a stabilizing amount up to about 9 mole % of a stabilizer component comprising:
        a. a first metal oxide selected from the group consisting of yttria, calcia, ceria, scandia, magnesia, india and mixtures thereof;
        b. a second metal oxide of a trivalent metal atom selected from the group consisting of lanthana, gadolinia, neodymia, samaria, dysprosia, and mixtures thereof and
        c. a third metal oxide of a trivalent metal atom selected from the group consisting of ytterbia, erbia and mixtures thereof.

2. The composition of claim 1 which comprises from about 92 to about 95 mole % zirconia and from about 5 to about 8 mole % stabilizing component.

3. The composition of claim 2 wherein the first metal oxide is yttria in amount of from about 3 to about 5 mole %, wherein the second metal oxide is selected from the group consisting of lanthana, gadolinia and mixtures thereof in an amount of from about 0.25 to about 2 mole % and wherein the third metal oxide is in an amount of from about 0.5 to about 2 mole %.

4. The composition of claim 3 which comprises the second and third metal oxides in a ratio of the amount of the second metal oxide to the third metal oxide of from about 0.75 to about 1.33.

5. The composition of claim 3 wherein the second metal oxide is lanthana and the third metal oxide is ytterbia.

6. A thermally protected article, which comprises:
    A. a metal substrate; and
    B. a thermal barrier coating comprising:

1. at least about 91 mole % zirconia; and
2. a stabilizing amount up to about 9 mole % of a stabilizer component comprising:
   a. a first metal oxide selected from the group consisting of yttria, calcia, ceria, scandia, magnesia, india and mixtures thereof;
   b. a second metal oxide of a trivalent metal atom selected from the group consisting of lanthana, gadolinia, neodymia, samaria, dysprosia, and mixtures thereof; and
   c. a third metal oxide of a trivalent metal atom selected from the group consisting of ytterbia, erbia and mixtures thereof.

7. The article of claim 7 which further comprises a bond coat layer adjacent to and overlaying the metal substrate and wherein the thermal barrier coating is adjacent to and overlies the bond coat layer.

8. The article of claim 8 wherein the thermal barrier coating has a thickness of from about 1 to about 100 mils.

9. The article of claim 8 wherein the thermal barrier coating has a strain-tolerant columnar structure.

10. The article of claim 9 wherein the thermal barrier coating comprises from about 92 to about 95 mole % zirconia and from about 5 to about 8 mole % total stabilizing component.

11. The article of claim 9 wherein the first metal oxide is yttria in amount of from about 3 to about 5 mole % of the thermal barrier coating, wherein the second metal oxide is selected from the group consisting of lanthana, gadolinia, and mixtures thereof in an amount of from about 0.5 to about 2 mole % of the thermal barrier coating and wherein the third metal oxide is in an amount of from about 0.5 to about 2.0 mole % of the thermal barrier coating.

12. The article of claim 11 wherein the thermal barrier coating comprises the second and

third metal oxides in a ratio of the amount of the second metal oxide to the third metal oxide of from about 0.75 to about 1.33.

13. The article of claim 15 wherein the second metal oxide is lanthana and the third metal oxide is ytterbia.

14. The article of claim 9 which is a turbine engine component.

15. The article of claim 14 which is a turbine shroud and wherein the thermal barrier coating has a thickness of from about 30 to about 70 mils.

16. The article of claim 14 which is a turbine airfoil and wherein the thermal barrier coating has a thickness of from about 3 to about 15 mils.

17. A method for preparing a thermal barrier coating on an underlying metal substrate, the method comprising the step of:

A. forming a thermal barrier coating over the metal substrate by depositing a ceramic composition, which comprises:

1. at least about 91 mole % zirconia; and

2. a stabilizing amount up to about 9 mole % of a stabilizer component comprising:

a. a first metal oxide selected from the group consisting of yttria, calcia, ceria, scandia, magnesia, india and mixtures thereof; and

b. a second metal oxide of a trivalent metal atom selected from the group consisting of lanthana, gadolinia, neodymia, samaria, dysprosia, and mixtures thereof; and

c. a third metal oxide of a trivalent metal atom selected from the group consisting of ytterbia, erbia and mixtures thereof.

18. The method of claim 17 wherein a bond coat layer is adjacent to and overlies the metal substrate and wherein the thermal barrier coating is formed on the bond coat layer.

19. The method of claim 18 wherein the ceramic composition is deposited by physical vapor deposition to form a thermal barrier coating having a strain-tolerant columnar structure.

20. The method of claim 19 wherein the ceramic composition that is deposited comprises from about 92 to about 95 mole % zirconia and from about 5 to about 8 mole % total stabilizing component.

21. The method of claim 20 wherein the ceramic composition that is deposited comprises yttria as the first metal oxide in amount of from about 3 to about 5 mole %, a second metal oxide is selected from the group consisting of lanthana, gadolinia and mixtures thereof in an amount of from about 0.25 to about 2 mole % and a third metal oxide is in an amount of from about 0.5 to about 2 mole %.

22. The method of claim 21 wherein the ceramic composition that is deposited comprises the second and third metal oxides in a ratio of the amount of the second metal oxide to the third metal oxide of from about 0.75 to about 1.33.

23. The method of claim 22 wherein the ceramic composition that is deposited comprises lanthana as the second metal oxide and ytterbia as the third metal oxide.